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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,138	06/29/2001	Martin Roth	420AS/49910	5748

7590 10/04/2002

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EXAMINER

DINH, TIEN QUANG

ART UNIT PAPER NUMBER

3644

DATE MAILED: 10/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/894,138

Applicant(s)

ROTH ET AL

Examiner

T. Dinh

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-68 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The first lock device having a recess on a surface and the complementary lock device having a recess. Also, the mountings being tiltable have not been disclosed. The spindle is connected to the antenna device has not been disclosed.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-68 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It is not understood how the spring 32 acts as a rotating drive unit to exert a force in the axial direction to rotate the nut and linearly move the spindle. How does this convert the rotational motion into a translational motion? How is this possible? By merely pre-tensioning the spindle does not allow the spindle to rotate the nut. Does the spring 32 acts to produce a torsional effect on the spindle instead of an axial pre-

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tensioning? Furthermore, it is not understood how the combination of the nut driven by motors 2 and the spring device 32 can act in combination as shown in figure 1 can cause the spindle to be dispatched to release the solar panels. Please explain. Could this be a translation error?

In claim 18, it is not understood how "first lock device which is connectable, detachably and with torsional strength" work? How is the torsion applied? Please explain.

In claims 30-36 and 59, it is not understood how the mountings are tiltable. How is this possible?

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 11, 16-18, 23-25, 29-31, 36-38, 43-49, 54-62, 66, 67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not understood in claims 1, 37, 48, and 66 what "connected rotatably fixed" mean. How could something be connected and fixedly rotatable at the same time? Is this a contradiction?

In claim 17, it is not understood what "the nut is connected rotatably fixed to a first lock device" means. How could something be rotatably fixed?

In claim 18, it is not understood what "first lock device which is connectable, detachably and with torsional strength" mean? How is this possible?

The above list is merely exemplary. Therefore, Applicant should review the claims in their entirety for compliance with 35 U.S.C. 112.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 11, 16, and 60, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Stanley.

Stanley discloses a linear operating device having an assembly for converting a rotational motion into a translational motion. The assembly has a nut 44, rotating drive unit 108 that is a motor that is "rotatably fixed to the nut", spindle 12A, and rollers 36. The method claims are met by the apparatus of Stanley.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 18, 23-25, and 29, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanley in view of Madey.

Stanley discloses all claimed parts of the invention except for the nut having a first lock device (a projection) and a complementary lock device to hold the nut in place. However, Madey discloses a nut having a first lock device/projection and a complementary device 176, 174 to hold the nut in place are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have attached a locking device on a nut and a complementary lock device in Stanley's system as taught by Madey to lock the nut in place to prevent accidental activation.

Claims 30, 31, and 36, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanley as modified by Madey as applied to claims 1 and 2 above, and further in view of Schonfield.

Stanley as modified by Madey discloses all claimed parts of the invention except for the mountings being tiltable. However, Schonfield discloses that mountings (see figure 4) that are tiltable are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used tiltable mountings in Stanley's system as modified by Madey and as taught by Schonfield to allow easier release of the solar panels.

Claim 3, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Stanley in view of Hansen.

Stanley discloses all claimed parts of the invention except for the nut being connected to a rotating drive unit that is a spring. However, Hansen discloses that a spring element which acts as a motor/rotating drive unit are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used a spring element/rotating drive unit Stanley's system as taught by Hansen to regulate the movement of the spindle.

Claims 4-10, 12-15, 37-43, 46-54, 57, 58, and 60-68, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al in view of Stanley.

Roth et al. discloses solar panel release device having a spindle 3 that is pretensioned (by a spring/elastic element, next to the part 13, see figure 1) in the axial direction of the spindle on an area of the spindle, which acts in conjunction with the nut, which has threads 33. Roth et al lacks having nuts that is "rotatably attached" to the spindle and having rollers and a motor that are rotatably fixedly connected to the nut. However, Stanley discloses a system having nuts 44 with rollers 36 that are rotatably attached to the spindle 12A and motor means that are rotatably fixedly connected to the nut to move the spindle in one direction are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used nuts with rollers and made the nuts be "rotatably attached" to the

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spindle and motor means that are rotatably fixedly connected to the nut in Roth et al's system as taught by Stanley to allow the safe release of the solar panels.

Claims 19-22, 26-28, 44, 45, 55, and 56, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al as modified by Stanley as applied to claims 5, 1, 8, above, and further in view of Madey.

Roth et al as modified by Stanley discloses all claimed parts of the invention except for the first locks on the nut and a complementary lock device to hold the nut in place. However, Madey discloses a nut having a first lock device/projection and a complementary device 176, 174 to hold the nut in place are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have attached a locking device on a nut and a complementary lock device in Roth et al's system as modified by Stanley and as taught by Madey to lock the nut in place to prevent accidental activation.

Claims 32-35 and 59, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al as modified by Stanley as applied to claims 5, 6, 4, 8, 58, 57, 48 above, and further in view of Schonfield.

Roth et al as modified by Stanley discloses all claimed parts of the invention except for the mountings being tiltable. However, Schonfield discloses that mountings (see figure 4) that are tiltable are well known in the art.



It would have been obvious to one skilled in the art at the time the invention was made to have used tiltable mountings in Roth et al's system as modified by Stanley and as taught by Schonfield to allow greater freedom of movement to release of the solar panels.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. German 47902 and Ludlow disclose mechanism.

Rizos, De Haan et al, and Kiendl solar panel release means.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. Dinh whose telephone number is 703-308-2798. The examiner can normally be reached on Monday Through Friday 8-6, alternate Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Jordan can be reached on 703-306-4159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-306-4195 for regular communications and 703-306-4195 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-4177.

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T. Dinh  
Examiner  
Art Unit 3644

TD  
September 30, 2002

T. Dinh

9/31/02

<b>Notice of References Cited</b>	Application/Control No. 09/894,138	Applicant(s)/Patent Under Reexamination ROTH ET AL.	
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**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-1444393	02-1923	Schonfield	
	B	US-3540676	11-1970	Madey	
	C	US-3965761	06-1976	Stanley	
	D	US-3981467	09-1976	Ludlow	
	E	US-4347023	08-1982	Rizos	
	F	US-4501981	02-1985	Hansen	
	G	US-4641798	02-1987	De Haan et al	
	H	US-4779826	10-1988	Kiendl	
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	DE 2734530	02-1979	Germany		74/428.8
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.